U.S. ARMY COMBAT READINESS/SAFETY CENTER

ARMY SAFE IS ARMY STRONG

A BAND OF BROTHERS & SISTERS

Accident Investigation Preparation and Preliminary Examination

Terminal Learning Objective

- **Action:** Determine the support items required to conduct an accident investigation
- **Condition:** Given a simulated accident site and an accident investigation kit
- **Standard:** Student must choose the appropriate tool for the task and demonstrate correct operation of the equipment

Risk Assessment

- **Safety Requirements:** None
- **Risk assessment Level:** Low
- **Environmental Considerations:** None; however, it is the responsibility of all Soldiers and DA civilians to protect the environment from danger.
- **Evaluation:** Group practical exercise and questions on the Accident Investigation exam.

References

- DA Pam 385-40, *Army Accident Investigations and Reporting*
- *Aircraft Accident Investigation,* Wood & Sweginnis
- *Accident Investigator's Handbook*

Overview

- Preparation for an Accident Investigation
- Investigator Safety
- Accident Notification Process
- Accident Investigation Kit
- Support Items
- Field Investigation Equipment

Overview *continued*

- The 3W Process
- Preliminary Site Procedures
- Preservation of the Site
- Qualities of An Investigator
- Support Plan

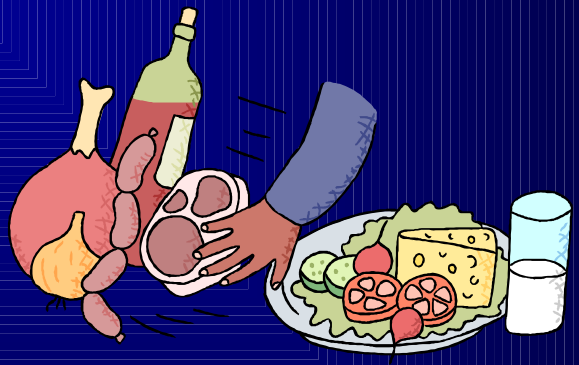
Prepared For Anything

- Standing List
- Be Prepared
- Deployment Kit

Investigator Safety

- Physical Fitness

- Immunizations
- Diet/Nutrition



- PPE

Accident Notification

Before you run…

- Gather your thoughts
- Implement the pre-accident plan
- Gather equipment

Accident Investigation Kit

Primary Kit

- Carrying case for kit contents
- Camera (digital with memory media)
- Tape recorder, batteries, and tape
- Inclinometer/Abney level
- Tape measure (100 foot)
- Optic range finder/distance measuring
- Flashlight (w/ batteries)

DA Pam 385-40, Para. 2-9

Accident Investigation Kit

continued

Primary Kit

- Magnetic compass (lensatic)
- Small magnifying glass
- Pocket/universal multi-tool, with case
- Steel ruler (1 foot) with large index
- Screwdrivers (flat tip and cross tip)
- Pliers and crescent wrench (8 inch)

DA Pam 385-40, Para. 2-9, b (9)-(14)

Investigation Kit References

- DA Pam 385-40
- Appropriate report forms:
  - AAAR -- DA Form 2397 series
  - AGAR -- DA Form 285 series
- Additional references
  - Technical manuals
  - Field Manuals
  - Training Circulars
  - Local regulations and SOPs

DA Pam 385-40, Para. 2-9, b (15) - (17)

Support Items

- Batteries
- Office supplies
- Clip board/ notebook
- Templates
- Poncho
- Plastic bags
- Camelback
- Power bar and/or snacks
- First aid kit
- Hat, sun glasses, sun screen, bug repellant

Cases

Durable, Weatherproof, Portable or Wheeled

Angles and Azimuths

Abney Inclinometer

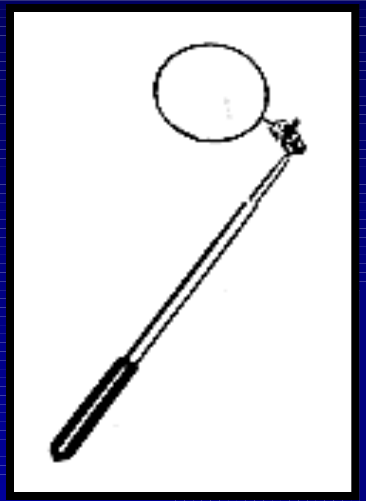
Lensatic Compass

Suunto Tandem

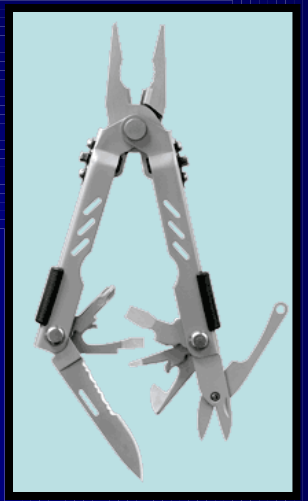
Protractor

Tools

Screwdriver



Inspection Mirror



Multi-tool

ViseGrips

Magnifier

Adjustable Wrench

Flashlights

Measuring

Retractable Rule

Metal Ruler

100 Foot Rule

Electronics

Digital or Tape Recorder

GPS

Camera and “Film”

Range Finder w/Binocular

Range Finder Only

Range Finder w/Compass

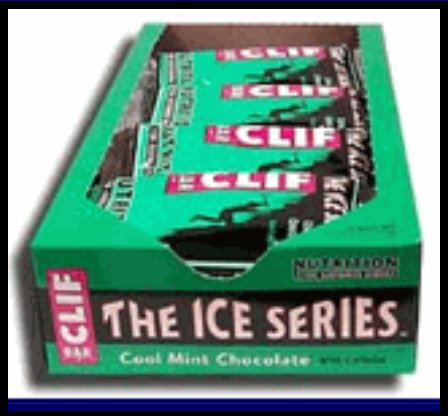
Personal Survival

Protection From Elements

Repellant

First Aid

Hydration



Food

Sunscreen

Investigator Protection

Tyvek

Rubber Gloves

Leather Gloves

Respirators

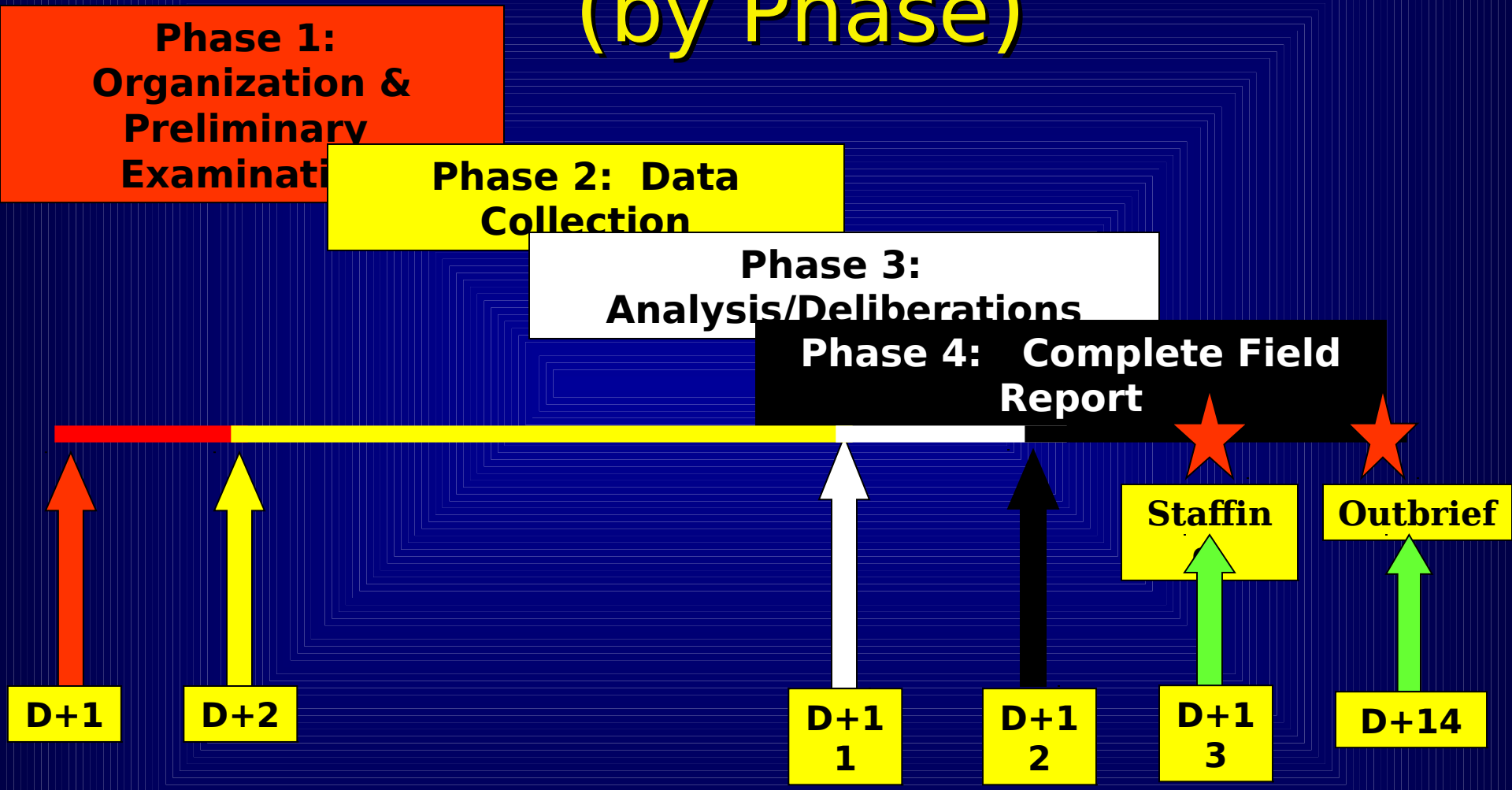
Particulate Mask

Eye Protection

Field Kit

- Bag
- Camera
- Marking tape

CAI Time Line (by Phase)



Typically, the investigation will take 14-21 days

DA Pam 385-40, Para. 2-

The 3W Process

1. What happened?

- Task (human) error, material failures/malfunctions or environmental condition that contributed to the accident (Tables B-1 thru B-4, DA Pam 385-40).
  - Avoid preconceived ideas
  - Follow a set pattern (deliberate)
  - Be flexible, adjust to situations

DA Pam 385-40, Para. 1- 5

The 3W Process

2. Why Did It Happen?

- What caused it? System inadequacy (root cause) or the why the task error occurred (Table B-5, DA Pam 385-40)
  - Leader failure
  - Training failure
  - Standards/Procedures failure
  - Support failure
  - Individual failure

DA Pam 385-40, Para. 1- 5

The 3W Process

3. What to do about it?

- The corrective recommendations that will prevent this type of accident from happening again (Table B-6, DA Pam 385-40).
- All corrective actions recommended must be addressed to the appropriate level of command:
  - Unit
  - Higher Command
  - Army level

DA Pam 385-40, Para. 1- 5

Initial Organization of Board

- Meeting before going to the accident site Members understand:
  - Their areas of responsibility
  - Initial tasks to be completed
  - Data elements required to complete the report
  - Preliminary actions taken by unit or installation personnel

DA Pam 385-40, 2-1, b(1)

Preliminary Accident Site Procedures

Procedures consisting of actions that normally occur according to the unit pre-accident plan

- Unit/installation safety officer takes charge
  - After EOD, chemical, fire fighting, rescue, and law enforcement have completed duties
  - Fire Chief declares site safe for entry

DA Pam 385-40, Para. 2-2

Preliminary Accident Site Procedures

- First priority: Safety of victims and personnel involved
  - Occupants
  - Fire/rescue personnel
  - Security personnel
  - Witnesses
  - Bystanders
  - Investigators

DA Pam 385-40, Para. 2-2, b (1)

Preliminary Accident Site Procedures

- Deceased personnel
  - Photograph and examination, if possible, before extraction
  - Approval required by coroner or medical examiner before moving bodies if off-post
  - If coroner performs autopsy, the board president must request a military forensic pathologist be present

DA Pam 385-40, Para. 2-2, b (1) (d)

Preliminary Accident Site Procedures

- Securing the Scene
  - Rope off accident site
  - Post guards
  - Establish entry point and pass system
  - Ensure protective measures for
    - Composites
    - Bloodborne pathogens_

DA Pam 385-40, Para. 2-2, b(2)

Preliminary Accident Site Procedures

- Preservation of the Accident Site
  - Safeguard wreckage and evidence from sightseers
  - Preserve
    - Ground scars
    - Vegetation
  - Create wreckage distribution diagram

DA Pam 385-40, Para. 2-2, c.

Qualities of an Investigator

- An open mind
- Capacity for hard work
- Common Sense
- Integrity
- Keep the faith
- Perseverance
- Technical knowledge
- Tact

Support Plan

Commanders assigned responsibility for the conduct and support of accident investigations will ensure that a local safety professional is available from the local safety office to assist the accident investigation board.

DA Pam 385-40, Para. 2-1, d.

Support Plan

The duties of the safety representative:

- Provide investigation kit
- Advise board concerning:
  - Technical report
  - Advice on administrative procedures
- Provide regulatory documents and directives
- Interpret local regulations
- Coordinate work space

DA Pam 385-40, Para. 2-1, d.

Support Plan

Commander ensures the board president receives the following support if necessary:

- Engineer
- Local TASC/PA (Photography)
- PAO
- Hospital commander
- Provost Marshall
- Weather Officer
- Maintenance Support Facility Commander
- Transportation Officer

DA Pam 385-40, Para. 2-1, d.

Support Plan

Additional technical assistance:

- Assistance for assets available to local commander
  - Metallurgists
  - Power plant engineers
  - Fuel and oil analysis
  - Other
- Assistance outside the local command
  - Request through USACR/SC

DA Pam 385-40, Para. 2-1, d.

Support Plan

Collateral investigation interface:

- Record of facts for use in litigation, claims, and other administrative and disciplinary actions
- Accident and criminal investigations get priority
- Accident board
  - Releases common source information to collateral
  - Cannot release content of witness statements, findings, analysis, and recommendations

DA Pam 385-40, Para. 2-1, f.

Support Plan

Criminal investigation interface:

- Contact ASAP
- Assumed criminal investigation authority?
- Both CID and accident investigations proceed while determining if criminal intent exists
- Accident investigation board may use any CID information (report, witness statements, photos, etc.)
- Factual data release to CID only

DA Pam 385-40, Para. 2-1, g.

Support Plan

Minority Report:

- Official report is signed by the board president
- Disagreeing board members will submit minority report
- Minimum requirements for report
  - Analysis paragraph explaining disagreement
  - Signature block of minority members

DA Pam 385-40, Para. 2-1, h.

Investigation Plan

- Phase 1

  Organization and Preliminary Examination
- Phase 2

  Data Collection
- Phase 3

  Analysis of the Data
- Phase 4

  Completing the Technical Report

DA Pam 385-40, Para. 2-1

SUMMARY